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POST WAR SETTLEMENT OF VETERANS IN ALBERTA

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CANADA DEPARTMENT OF AGRICULTURE

FOREWORD

This report deals with the progress achieved by a group of World War II veterans established on farms in Alberta under the Veterans Land Act. The study was carried out by the Economics Division, Canada Department of Agriculture, in co-operation with the Veterans Land Act Administration. Officials of the Veterans Land Act were interested in an appraisal of the progress of veterans established under their supervision, and officials of the Department of Agriculture are concerned with similar problems facing farmers in the newly settled frontier areas and farmers starting to farm under a family transfer arrangement. The study should be of particular value to the veterans themselves in the management of their farm businesses. They were supplied with financial summaries of their respective businesses for each year of the study; these summaries enabled them to appraise their financial progress and determine which factors were the most likely to lead to a profitable exploitation and development of their farm resources.

The study emphasizes the financial aspects of the farm business. The information collected relates to three of the more important types of farming in Alberta; the general crop-livestock type in west central Alberta, a general irrigation crop-livestock type in the Eastern Irrigation District, and a dryland wheat-cattle type in southwestern Alberta.

ACKNOWLEDGMENT

Officials of the Veterans Land Act Administration gave advice and assistance throughout the course of the study, and the co-operation of the veteran settlers who provided the basic information deserves especial mention, for without this co-operation the study could not have been made.

A large part of the organization of this study, as well as the early interviews and guidance of individual co-operators, was done by Mr. Thos. Askin, formerly an Economist with the Economics Division, Canada Department of Agriculture. The writer gratefully acknowledges this most important contribution to the present report.

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R.A. Benedict 1/

INTRODUCTION

Scope and Method of Study

The settlement of veterans after World War II presented the Veterans' Land Act Administration with many problems. Once placed on his farm the veteran himself faced many problems. Increased mechanization and technological changes in modern farming have accentuated farm investment and organization problems. These problems, however, are more acute for beginning than for older-established farmers.

In order to throw some light on these problems a study of postwar settlement was made in 1946 among a group of V.L.A. settlers in the Red Deer-Lacombe area of central Alberta. This study is designed to supply information regarding the rate of progress of settlers and to determine the more important factors and practices affecting the rate of progress. Farmers were encouraged to keep accounts and records, as a means of providing information to be used in the successful management of their farms. The size of the sample was enlarged and the scope of the study was widened by the inclusion in 1949 and 1950 of the Brooks area (located in the Eastern Irrigation District) and a wheat area around Claresholm and Vulcan.

Farm Organization.— Mixed farming is the predominant type of farming in the Red Deer-Lacombe and in the Brooks areas, which covered most of the Eastern Irrigation District, also represented a mixed farming type of organization. The chief distinction between these two districts was the practice of irrigation in the Brooks area. Wheat was an important cash crop in both of these areas, although the irrigation farmers grew considerable "soft wheat". Specialty crops did not occupy a large place in the farming organization of the irrigation farmers who co-operated in the study.

The farm organization in the Claresholm-Vulcan area emphasized wheat as a cash crop, this being a typical wheat area of Western Canada.

One visit each year was made to the co-operating farmers during the course of the study. At the time of this call information available in account books kept by the veterans was transferred to a special form while information not recorded in these account books was also gathered at this time.

Some co-operators had their own system of keeping records and accounts. However, most co-operators used the "Farm Account Book" prepared by the

1/ Economics Division, Marketing Service, Canada Department of Agriculture, University of Alberta, Edmonton.

Economics Division, Canada Department of Agriculture. A copy of this account book was distributed to the co-operators each year. The skill with which the farmers kept these accounts increased from year to year. Some co-operators kept very complete and detailed records but others kept few records even after several calls. Many men received help from their wives in keeping the farm records. On many farms much of the purchasing and business was carried on by both the husband and wife, making their combined interest in the farm accounts and records very important.

Following analysis of these accounts, the co-operating farmer received each year a confidential report comparing his financial statement with the average of the sample in the district in which he farmed.

The accounting system used in analyzing the accounts was a single entry, accrual system. As most of these farmers filed their income tax on a cash basis and preferred to keep their accounts on this basis, it was necessary to adjust these accounts in order to use them for the accrual system. That is, expenses not paid for during the current year were added, and expenses paid for but pertaining to a previous period were deleted. Receipts were adjusted in the same manner if this was necessary and inventory changes were taken into account.

One commonly used measure of the financial progress on a farm is the change of net worth which occurs from year to year. How this measure should be interpreted depends largely on the methods used in valuing inventory. An increase in net worth may be because the farm has been operated at a profit or it may be the result of rising prices. A decrease in net worth could mean the business has been operated at a loss, or could result from a declining price level. A lower net worth may also mean the farm income has not been large enough to meet living expenses.

To maintain the farmer's equity when the price level is increasing, it may be necessary to increase investment in the farm business. Moreover, when prices of commodities purchased by the farmer are rising, liabilities may have to be increased in order to maintain the farm capital.

An increase in investment in the farm by the farmer commonly takes the form of increases in inventories of livestock and buildings or in the reduction of the mortgage. In discussing the change of net worth the methods used in valuation of farm inventories will be described.

This report has been divided into three parts; Part I deals with a group of 15 farmers from the central Alberta area near Red Deer and Lacombe. The records of these 15 farmers are included in this part because they gave records in all five years that the study was carried on in that district.

Part II deals with comparisons between the three areas studied for veterans giving continuous records over a period of time. In central Alberta the above 15 records were increased to 21 as this

number of settlers gave records in 1947, 1948, 1949 and 1950. In the irrigation district at Brooks, 29 veterans gave records in 1949 and 1950, and in the wheat area around Vulcan and Claresholm there were 30 who gave records in 1949 and 1950.

Part III deals with the total number of records taken each year in the three districts. As some co-operators dropped out each year for various reasons and new co-operators were added, these results do not represent a constant sample.

PART I - PROGRESS OF FIFTEEN V.L.A. FARMERS IN CENTRAL ALBERTA

The year 1946 was a beginning year for many of the 15 farmers included in the sample for central Alberta. At the end of that year, however, most of these settlers had their available resources organized and were ready to start full-time farming.

Change in Net Worth

The net worth of these 15 farmers had increased by \$4,187, on the average, from the end of 1946 to the end of 1950.

Table 1.- Net Worth Statement, Average for 15 V.L.A. Farms in the Red Deer-Lacombe Area of Alberta, 1946-1950

	: Dec. 31: Dec. 31: Dec. 31: Dec. 31: Dec. 31				
	: 1946 : 1947 : 1948 : 1949 : 1950				
- dollars -					
Real estate	5,654	5,880	6,288	7,106	7,356
Livestock	1,112	1,578	2,119	2,231	3,418
Equipment	2,298	2,852	3,071	3,164	3,850
Grain, feeds and supplies	1,008	1,299	1,478	744	972
All other assets	1,268	1,156	1,332	1,053	990
Total assets	11,240	12,765	14,288	14,298	16,586
Total liabilities a/	3,316	3,162	3,167	3,535	4,375
Net worth	8,024	9,603	11,121	10,763	12,211
Net worth change from previous year		1,579	1,518	-358	1,448

a/ Assumes fulfilment of V.L.A. contract terms by the settlers.

This change in net worth from an average of about \$8,000 per farm in 1946 to over \$12,000 per farm in 1950 came about through increased investment. In some cases settlers had replaced worn-out machinery by machinery then selling at higher prices and had increased the amount

of machinery. Increased prices for livestock brought about an increase in livestock inventory valuations; there were also increases in the numbers of livestock on farms. Improvements were made to land and buildings on most farms. Increase of net worth also came about through V.L.A. payments and thus helped increase the veteran's equity in his farm.

Relation of Liabilities and Assets to Change in Net Worth

Increases in assets and decreases in liabilities cause an increase in net worth, whereas decreases in assets and increases in liabilities result in a decrease in net worth. Table 2 summarizes the above relationships for the 15 farms over the four-year period.

Table 2.- Change in Net Worth, Average for 15 V.L.A. Farms in the Red Deer-Lacombe Area of Alberta, 1947-1950

Year	: Ratio of : assets to : liabilities	: Increase in assets	: Decrease in liabilities	: Increase in liabilities	: Change in net worth - dollars -
1947	4.0	1,425	154	-	1,579
1948	4.5	1,523		5	1,518
1949	4.0	10		368	-358
1950	3.8	2,288		840	1,448
Total					4,187

The table shows the average changes in assets and liabilities for these farms. The value of assets increased in all of the four years in which the change in net worth was measured, but only in one year during the period were liabilities reduced during the year.

Table 3 shows the trend of the various farm assets, total assets, liabilities, and net worth. These have been calculated as indexes, using 1946 as the base year.

Table 3.- Indexes of Assets and Liabilities, Using 1946 as the Base Year, for 15 V.L.A. Farms in the Red Deer-Lacombe Area of Alberta

	: Dec. 31 : 1946	: Dec. 31 : 1947	: Dec. 31 : 1948	: Dec. 31 : 1949	: Dec. 31 : 1950
- per cent -					
Real estate	100	104	111	126	130
Livestock	100	142	190	201	307
Equipment	100	124	134	138	168
Grain, feeds and supplies	100	129	147	74	96
All other assets	100	91	105	83	78
Total assets	100	112	126	126	146
Total liabilities	100	95	96	107	132
Net worth	100	120	138	134	152

The real estate inventory increased by 30 per cent over the four years and was mainly the result of clearing and breaking new land, improvements to buildings, and electrification of farms. The real estate inventory was not revalued to the higher price level for land which prevailed in 1950.

The livestock inventory increased by 207 per cent and this was brought about by an increase in the livestock population and also by increases in the level of prices for livestock. The annual livestock inventories were revalued at current market prices.

The equipment inventory increased by 68 per cent in value as a result of increased amounts of machinery on the farms and the fact that machinery had been replaced from time to time by higher priced machines. Depreciation of special machinery (tractors, trucks, combines etc.) was on the basis of original cost 1/ except in a few cases where original cost was not known and replacement costs were used. The general equipment inventory (plows, mowers, tiller combines, etc.) was brought on to the books at market value and depreciated on a reducing balance method.2/

The grain, feeds and supplies inventory moved up and down in value over the years, reflecting the variations of grain and other feed values and also the amounts of grain and feed held over at the end of the year. The slight difference of four per cent between 1946 and 1950 would indicate that about the same amounts of grain and feed (supplies made up only a small portion of the inventory) were held on hand at the end as at the beginning of the period under review, since slightly lower values prevailed in 1950 than in 1946.

All other assets, including household effects, bonds, life insurance, accounts receivable, cash bank deposits, etc., had decreased in value by 22 per cent over this period. One of the significant features in this inventory was a reduction in the amount of money held in bank balances and in bonds.

1/ Depreciation on original cost or replacement cost was calculated on a gross depreciation rate and an allowance made for repairs to arrive at a net depreciation. A reducing rate type of depreciation was used for arriving at the gross depreciation, e.g.:

combines 1st year - 18 per cent

" 2nd year - 16 per cent

" 3rd year - 16 per cent

4th to 12th - 15 per cent

13th and subsequent years - 9 per cent

2/ The diminishing balance method system of depreciation means that a percentage of the remaining value is deducted each year for depreciation. A gross constant depreciation rate of 19 per cent was used and an allowance made for repairs to arrive at a net depreciation. There was one exception in the net depreciation rate of ten per cent for the first year on the original cost and the balance remaining became part of the general machinery inventory for future depreciation. This system ensured that a balance would never disappear for the general machinery.

The overall effect of these various influences on the assets position was to increase the total value of the assets by 46 per cent during the period.

During these same four years the total liabilities had also increased by 32 per cent. These increases of liabilities were brought about mainly as the result of borrowings for the purchase of machinery, improvements to buildings, and electrification of farms.

The combined effect of these changes in the assets and liabilities was to give an average increase in net worth of 52 per cent from the end of 1946 to the end of 1950.

The ratio of assets to liabilities was 4.0 in 1946 and 3.8 in 1950. This would indicate that financial strength of the settlers' business had remained rather stable during the five-year period.

Farm Capital

The four main categories of farm capital constituted the major portion of assets on these farms. These were: (1) real estate, (2) livestock, (3) equipment and (4) grain, feeds and supplies.

The real estate inventory, although it increased steadily in value, accounted for a smaller share of the farm capital in 1950 than in 1946. A revaluation of this inventory to the higher price level for farms which prevailed in 1950 would have changed this relationship. The machinery inventory continued to have about the same share of the farm capital throughout the period. The livestock inventory value had doubled as a proportion of total farm capital from 1946 to the end of 1950, largely as a result of much higher prices for cattle. The average number of animal units carried through the year had increased by 34 per cent. A breakdown of the livestock inventory values showed the greatest gain to have been in the value of the cattle inventory.

Table 4.- Farm Capital, Average for 15 V.L.A. Farms in the Red Deer-Lacombe Area of Alberta, 1946-1950

	: Dec. 31									
	: 1946	: 1947	: 1948	: 1949	: 1950					
	: Per		Per							
	: Dollars	: cent	: Dollars	: cent	: Dollars	: cent	: Dollars	: cent		
Real estate	5,654	56	5,880	51	6,288	49	7,106	53	7,356	47
Livestock	1,112	11	1,578	14	2,119	16	2,231	17	3,418	22
Equipment	2,298	23	2,852	24	3,071	24	3,164	24	3,850	25
Grain, feeds and supplies	1,008	10	1,299	11	1,478	11	744	6	972	6
Total	10,072	100	11,609	100	12,956	100	13,245	100	15,596	100

Table 5.- Livestock Values, Average for 15 V.L.A. Farms in the Red Deer-Lacombe Area of Alberta, 1946-1950 a/

	: Dec. 31 : 1946	: Dec. 31 : 1947	: Dec. 31 : 1948	: Dec. 31 : 1949	: Dec. 31 : 1950
- dollars -					
Horses	66	97	80	53	53
Cattle	722	877	1,459	1,462	2,518
Hogs	266	548	515	664	793
Sheep	-	-	10	-	-
Poultry	58	56	55	52	54
Total	1,112	1,578	2,119	2,231	3,418

a/ The livestock values are the average end year valuations of the live-
stocks inventories for these 15 V.L.A. farms.

Net Farm Income

The level of net farm income varied over the four years (Table 6). The net farm income shows the returns to the operator for his labour and management and also for the farm capital. If he owns all his farm capital then the return will all be his own, but if some of his farm capital is borrowed then interest on the borrowed money must also be paid from this sum.

Table 6.- Income Statement, Average for 15 V.L.A. Farms in the Red Deer-Lacombe Area of Alberta, 1947-1950

	: Dec. 31 : 1947	: Dec. 31 : 1948	: Dec. 31 : 1949	: Dec. 31 : 1950
- dollars -				
Inventory increase	1,780	1,862	1,407	2,659
Equipment sales	85	248	303	599
Current receipts	<u>3,332</u>	<u>4,178</u>	<u>3,621</u>	<u>4,002</u>
Total receipts	5,197	6,288	5,311	7,260
Inventory decrease	243	516	1,117	308
Capital expenditure	1,686	1,806	1,997	2,686
Current expenses	<u>1,418</u>	<u>1,717</u>	<u>1,523</u>	<u>1,974</u>
Total expenses	3,347	4,039	4,637	4,968
Net farm income	1,850	2,249	694	2,292
Less interest on capital @ 5%	<u>542</u>	<u>614</u>	<u>655</u>	<u>721</u>
Labour income	1,308	1,635	39	1,571
Use of house	116	135	149	151
Produce used	<u>346</u>	<u>410</u>	<u>504</u>	<u>423</u>
Labour earnings	1,770	2,180	692	2,145

In 1949 some capital disinvestment was required to bolster the low net income of that year. In 1950, however, this disinvestment was recovered, and investment by the co-operators in their farm business was resumed.

In Table 7, capital expenditures and sales and their offsetting entries have been excluded. Depreciation was included under farm expenses rather than as a change in the beginning and closing inventory values. This type of summary is utilized in calculating the various ratios.

Table 7.- Summary Income Statement, Average for 15 V.L.A. Farms in the Red Deer-Lacombe Area of Alberta, 1947-1950

	Dec. 31: 1947	Dec. 31: 1948	Dec. 31: 1949	Dec. 31: 1950
- dollars -				
Gross farm income	3,721	4,398	2,666	4,883
Farm expenses (includes depreciation)	1,871	2,149	1,972	2,591
Net farm income	1,850	2,249	694	2,292

The statement in Table 6, although satisfactory for calculating net farm income, does not provide a satisfactory method for calculating gross farm income or farm expenses figures which were required for the computation of various ratios. Inclusion of capital inventory increases as receipts in Table 6, even though these would be offset by capital expenditures, would distort the ratios and comparisons between farms and between years. Thus the gross income figure in Table 7 represents only the gross income that was earned by the farm business during the year, and expenses includes only the expenses incurred during the year. Comparisons for gross income and farm expenses can then be made between farms and for the same farm in different years.

Table 8.- Ratios, 15 V.L.A. Farms in the Red Deer-Lacombe Area of Alberta, 1947-1950

	:	:	:	:
	1947:	1948	1949	1950
Gross ratio	50	49	74	53
Ratio of net farm income to gross farm income	50	51	26	47
Rate of turnover	34	36	20	34
Years for gross income to equal average invested capital	2.9	2.8	5.0	2.9

Gross Ratios.— This ratio shows the percentage of gross income consumed by expenses. The gross ratio is found by comparing total expenses with gross income as a percentage. This ratio is a measure of the efficiency of the business. The gross ratio is considered in relation to gross income. An efficient gross ratio on a small gross income could easily mean a smaller net farm income than a less efficient gross ratio on a larger gross income. This type of ratio would seem to have less significance in farming areas where gross income is very variable, because of yield or price fluctuations. Difficulty is then encountered in reading the ratios directly without also looking at the yield and prices of a particular year for interpretation of the relationships as favourable or otherwise. The unfavourable ratio of 74 in 1949 is related to the poor yields of that year (Table 9).

Table 9.— Production and Financial Records, 15 V.L.A. Farms in the Red Deer-Lacombe Area of Alberta, 1947-1950

	Unit	1947	1948	1949	1950
Total acres in wheat	acres	152	158	292	407
Number of farms having wheat	number	6	6	9	10
Average yield per acre	bushels	33	30	18	24
Acres in oats	acres	463	473	380	448
Number of farms having oats	number	15	12	11	13
Average yields per acre	bushels	38	37	18	32
Acres in barley	acres	777	688	765	1,070
Number of farms having barley	number	14	13	13	15
Average yield per acre	bushels	24	28	13	19
Total number of hogs sold (15 farms)	number	221	414	310	594
Average value per hog	dollars	33	45	41	33
Total number of cattle sold (15 farms)	number	60	69	87	90
Average value per head	dollars	73	98	104	130
Total income from sale of poultry and eggs (15 farms)	dollars	1,923	1,861	2,396	2,167

Ratio of Net Farm Income to Gross Farm Income.— This ratio, like the gross ratio, is expressed as a percentage and it shows how much of the gross income is represented by net farm income. This ratio must also be related to the volume of business. A large profit margin with a small volume of business would, of course, yield a low net farm income.

The Rate of Turnover Index.— This index, as used here, represents the gross income per one hundred dollars of average invested capital. The years required for gross income to equal average invested capital is another means of showing this same relationship.

An unfavourable relationship in these ratios could be the result of inefficient farm management. However, low relative yields and low prices are also responsible. The unfavourable showing in 1949 could be traced directly to low yields. Because farm success depends on biological factors such as crop yields, pronounced year-to-year changes can be expected in these ratios in areas of variable climate.

PART II - THREE COMPARISONS OF PROGRESS MADE BY SETTLERS IN ALBERTA AREAS

Part II contains a comparative analysis of the progress of settlers in the following three areas:

- (a) Central Alberta - 21 farmers in the Red Deer-Lacombe area co-operated continuously from 1947 to 1950 inclusive.
- (b) Irrigation area - 29 farmers in the Eastern Irrigation District area around Brooks co-operated during 1949 and 1950.
- (c) Wheat area - 30 farmers in the Vulcan-Claresholm area co-operated during 1949 and 1950.

The farms in these samples were selected so that the date of starting farming would be similar in all districts studied.

Change in Net Worth

The "net worth at the start" (Table 10) includes the value of the V.L.A. grant. All of the net worth figures are calculated on the assumption that the terms of the V.L.A. contracts will be met and, thus, the full benefits of the grant received. Failure to meet these conditions would reduce net worth by \$2,320 on most farms as liabilities would be increased by this amount.

Table 10.- Net Worth Statements, Averages for Co-operators
Giving Continuous Records

(a) Central (Alberta) (Red Deer-Lacombe Area) Average for 21 V.L.A. Records

	: At	: Dec. 31:	Dec. 31:	Dec. 31:	Dec. 31:	Dec. 31
	: start	: 1946	: 1947	: 1948	: 1949	: 1950
- dollars -						
Real estate		5,910	6,248	6,683	7,326	7,827
Livestock		1,111	1,535	2,065	2,202	3,098
Equipment		2,366	2,934	3,383	3,560	4,139
Grains, feeds and supplies		754	1,545	1,663	1,044	1,384
All other assets		1,568	1,591	1,488	1,340	1,165
Total assets		11,709	13,853	15,282	15,472	17,613
Total liabilities		3,333	3,236	3,271	3,399	4,166
Net worth	6,223	8,376	10,617	12,011	12,073	13,448
Change in net worth			2,241	1,394	62	1,315
Total change in net worth						7,225

(b) Irrigation (Brooks Area), Average for 29 V.L.A. Farms

	: At	: Dec. 31	: Dec. 31	: Dec. 31
	: start	: 1948	: 1949	: 1950
- dollars -				
Real estate		4,140	5,955	6,379
Livestock		1,037	1,686	3,228
Equipment		3,620	4,383	4,708
Grains, feeds and supplies		578	705	767
All other assets		1,931	1,594	1,286
 Total assets		11,306	14,323	16,368
 Total liabilities		2,893	3,807	4,691
 Net worth		5,190	8,413	10,516
 Change in net worth			2,103	1,161
 Total change in net worth				6,487

(c) Wheat (Vulcan-Claresholm Area), Average for 30 V.L.A. Farms

	: At	: Dec. 31	: Dec. 31	: Dec. 31
	: start	: 1948	: 1949	: 1950
- dollars -				
Real estate		7,283	8,180	9,130
Livestock		1,286	1,684	1,923
Equipment		3,920	5,433	5,658
Grains, feeds and supplies		1,378	2,166	935
All other assets		2,663	2,557	2,527
 Total assets		16,530	20,020	20,173
 Total liabilities		4,078	4,374	4,780
 Net Worth		6,237	12,452	15,646
 Change in net worth			3,194	- 253
 Total change in net worth				9,156

The rate of gain in net worth was greatest but also the most variable on the farms in the wheat area. The gain in net worth on the irrigated farms was slower than in the other areas studied, but the rate of gain was more consistent.

Table 11.- Change in Net Worth, Averages for Co-operators
Giving Continuous Records

(a) Central Alberta (Red Deer-Lacombe Area), Average for 21 V.L.A. Farms

Year	: Ratio of : Increase : Decrease : Increase : Change				
	: assets to : in : in : in : in net				
	: liabilities: assets :liabilities :liabilities : worth				
- dollars -					
1947	4.2	2,144	97	-	2,241
1948	4.6	1,429		35	1,394
1949	4.5	190		128	62
1950	4.2	2,141		766	1,375

(b) Irrigation (Brooks Area) Average for 29 V.L.A. Farms

Year	: Ratio of : Increase : Decrease : Increase : Change				
	: assets to : in : in : in : in net				
	: liabilities: assets :liabilities :liabilities : worth				
- dollars -					
1948	3.9				
1949	3.7	3,017		914	2,103
1950	3.4	2,045		884	1,161

(c) Wheat (Vulcan-Claresholm Area), Average for 30 V.L.A. Farm

Year	: Ratio of : Increase : Decrease : Increase : Change				
	: assets to : in : in : in : in net				
	: liabilities: assets :liabilities :liabilities : worth				
- dollars -					
1948	4.1				
1949	4.6	3,490		296	3,194
1950	4.2	153		406	- 253

With the exception of 1947 for central Alberta, when liabilities were decreased, liabilities and assets increased in all years for these districts. In 1950 in the wheat area liabilities increased more than the assets. The ratio of assets to liabilities indicates that settlers in the irrigation districts had a poorer long-time financial position than settlers in the other two districts.

Farm Capital

Comparisons between the three districts show some differences in the farm capital structure. On farms in the irrigation area, a relatively high percentage of the capital was tied up in machinery and a relatively

smaller amount in real estate as compared to the other two districts.

Table 12.- Farm Capital and Its Disposition, Averages for Co-operators Giving Continuous Records

(a) Central Alberta (Red Deer-Lacombe Area), Average for 21 V.L.A. Farms

	: Dec. 31		: Dec. 31		: Dec. 31		: Dec. 31		: Dec. 31	
	: 1946		: 1947		: 1948		: 1949		: 1950	
	: Per : : Dollars:cent:		: Per : : Dollars:cent:		: Per : : Dollars:cent:		: Per : : Dollars:cent:		: Per : : Dollars:Cent:	
Real estate	5,910	58	6,248	51	6,683	48	7,326	52	7,827	48
Livestock	1,111	11	1,535	12	2,065	15	2,202	16	3,098	19
Equipment	2,366	23	2,934	24	3,383	25	3,560	25	4,139	25
Grains, feeds and supplies	754	8	1,545	13	1,663	12	1,044	7	1,384	8
Total	10,141	100	12,262	100	13,794	100	14,132	100	16,448	100

(b) Irrigation (Brooks Area), Average for 29 V.L.A. Farms

	: Dec. 31		: Dec. 31		: Dec. 31	
	: 1948		: 1949		: 1950	
	: Per : : Dollars:cent:		: Per : : Dollars:cent:		: Per : : Dollars:Cent:	
Real estate	4,140	44	5,955	47	6,379	42
Livestock	1,037	11	1,686	13	3,228	22
Equipment	3,620	39	4,383	34	4,708	31
Grains, feeds and supplies	578	6	705	6	767	5
Total	9,375	100	12,729	100	15,082	100

(c) Wheat (Vulcan-Claresholm Area), Average for 30 V.L.A. Farms

	: Dec. 31		: Dec. 31		: Dec. 31	
	: 1948		: 1949		: 1950	
	: Per : : Dollars:cent:		: Per : : Dollars:cent:		: Per : : Dollars:cent:	
Real estate	7,283	53	8,336	47	9,123	52
Livestock	1,286	9	1,684	10	1,923	11
Equipment	3,920	28	5,433	31	5,658	32
Grains, feeds and supplies	1,378	10	2,166	12	935	5
Total	13,867	100	17,619	100	17,645	100

There was a rapid increase of capital in the irrigation area, which reflected mostly in the livestock inventory. Livestock inventory values increased also in the other two areas, although, in the wheat area, they did not vary very much as a proportion of total farm capital.

Table 13.- Livestock Values, Averages for Co-operators
Giving Continuous Records

(a) Central Alberta (Red Deer-Lacombe Area) Average for 21 V.L.A. Farms

	Dec. 31		Dec. 31		Dec. 31		Dec. 31		Dec. 31	
	1946	1947	1947	1948	1948	1949	1949	1950	1950	
	: Per	: Per	: Per							
	Dollars	cent	Dollars	cent	Dollars	cent	Dollars	cent	Dollars	cent
Horses	74	7	94	6	87	5	64	3	61	2
Cattle	694	62	888	58	1,381	67	1,369	62	2,076	67
Hogs	287	26	498	32	484	23	671	30	769	24
Sheep	-	-	-	-	61	3	46	2	135	4
Poultry	56	5	55	4	51	2	52	3	56	3
Total	1,111	100	1,535	100	2,065	100	2,202	100	3,097	100

(b) Irrigation (Brooks Area), Average for 29 V.L.A. Farms

	Dec. 31, 1948		Dec. 31, 1949		Dec. 31, 1950	
	: Per	: Per	: Per	: Per	: Per	: Per
	Dollars	cent	Dollars	cent	Dollars	cent
Horses	56	5	66	4	46	1
Cattle	781	74	1,210	72	2,551	79
Hogs	98	9	273	16	432	13
Sheep	90	8	90	5	160	5
Poultry	29	4	48	3	39	2
Total	1,054	100	1,686	100	3,228	100

(c) Wheat (Vulcan-Claresholm Area), Average for 30 V.L.A. Farms

	Dec. 31		Dec. 31		Dec. 31	
	1948	1949	1949	1950	1950	
	: Per	: Per	: Per	: Per	: Per	
	Dollars	cent	Dollars	cent	Dollars	cent
Horses	20	2	37	2	40	2
Cattle	1,165	90	1,445	86	1,681	87
Hogs	65	5	165	10	150	8
Sheep	8	-	8	-	21	1
Poultry	28	3	28	2	31	2
Total	1,286	100	1,684	100	1,923	100

Cattle made up a very large portion of the livestock industry in the wheat area and also represented a large share of the farm capital in both central Alberta and the irrigation district. Hogs showed a larger inventory value in Central Alberta but also played a significant role in the irrigation area. Hogs placed a relatively small part in the farm organization on the wheat farms. The practice of buying feeders through Livestock Associations was a large factor in the increased livestock inventory valuations appearing in the central Alberta and in the irrigation areas.

Farm Income

The following table indicates the income position of the farms in each of the areas studied. Production data relating to income are summarized in Table 15.

Table 14.- Income Statement, Averages for Co-operators
Giving Continuous Records

(a) Central Alberta (Red Deer-Lacombe Area), Averages for 21 V.L.A. Farms

	: For year : For year : For year : For year		
	: ending : ending : ending : ending		
	: Dec. 31, 1947 : Dec. 31, 1948 : Dec. 31, 1949 : Dec. 31, 1950		
- dollars -			
Inventory increase	2,311	2,021	1,363
Equipment sales	139	205	483
Current receipts	<u>3,436</u>	<u>4,403</u>	<u>3,985</u>
Total receipts	5,886	6,629	5,831
Inventory decrease	190	489	1,023
Capital expenditure	1,741	2,013	2,058
Current expenses	<u>1,545</u>	<u>1,844</u>	<u>1,700</u>
Total expenses	3,476	4,346	4,781
Net farm income	2,410	2,283	1,050
Less interest on capital at five per cent	<u>559</u>	<u>651</u>	<u>698</u>
Labour income	1,851	1,632	352
Use of house Produce used	117	130	140
	<u>294</u>	<u>394</u>	<u>487</u>
Labour earnings	2,262	2,156	979
			2,305

(b) Irrigation (Brooks Area), Averages for 29 V.L.A. Farms

	: For : year ending : Dec. 31, 1949	: For : year ending : Dec. 31, 1950
		- dollars -
Inventory increase	3,568	2,813
Equipment sales	163	556
Current receipts	5,072	4,270
Total receipts	8,803	7,639
Inventory decrease	469	460
Capital expenditure	3,616	2,608
Current expenses	2,113	2,112
Total expenses	6,198	5,180
Net farm income	2,605	2,459
Less interest on capital at 5 per cent	552	694
Labour income	2,053	1,765
Use of house	160	170
Produce used	296	309
Labour earnings	2,509	2,244

(c) Wheat (Vulcan-Claresholm Area), Averages for 30 V.L.A. Farms

	: For : year ending : Dec. 31, 1949	: For : year ending : Dec. 31, 1950
		- dollars -
Inventory increase	4,078	2,014
Equipment sales	668	363
Current receipts	7,385	5,637
Total receipts	12,131	8,014
Inventory decrease	483	1,828
Capital expenditure	3,962	2,487
Current expenses	2,871	2,306
Total expenses	7,316	6,621
Net farm income	4,815	1,393
Less interest on capital at 5 per cent	783	879
Labour income	4,031	514
Use of house	136	162
Produce used	221	234
Labour earnings	4,388	910

The income statement shows the level of income over the years as measured by net farm income, labour income and labour earnings. The net farm income was low for the central Alberta group for 1949 and for the wheat area in 1950. By looking at the yield data in Table 15 it can be seen that grain yields for these districts were low in these years.

Table 15.- Production and Financial Records, Averages for Co-operators Giving Continuous Records

(a) Central Alberta (Red Deer-Lacombe Area)

	Unit	1947	1948	1949	1950
Acres in wheat (total of group)	acres	222	326	630	875
Number of farms having wheat	number	10	11	14	13
Average wheat yield per acre	bushels	33	31	18	26
Acres in oats (total of group)	acres	570	562	428	511
Number of farms having oats	number	20	16	16	16
Average oat yield per acre	bushels	40	36	19	33
Acres in barley (total of group)	acres	1,229	1,181	1,003	1,326
Number of farms having barley	number	20	19	18	20
Average barley yield per acre	bushels	29	28	14	21
Number of hogs sold (total of group)	number	298	513	418	817
Average value per hog	dollars	36	45	41	38
Number of cattle sold (total of group)	number	70	91	187	127
Average value per head	dollars	74	92	70	118
Total income from sale of poultry and eggs	dollars	2,068	2,405	3,264	3,176
Average size of farm	acres	229	233	244	265
Average acres of cropland	acres	156	175	183	203
Average per cent of cropland to total farm	per cent	68	75	75	77

(b) Irrigation (Brooks Area)

	Unit	1949	1950
Acres in wheat (total of group)	acres	1,767	1,490
Number of farms having wheat	number	28	27
Average wheat yield per acre	bushels	29	26
Acres in oats (total of group)	acres	465	535
Number of farms having oats	number	22	21
Average oat yield per acre	bushels	45	40
Acres in barley (total of group)	acres	445	501
Number of farms having barley	number	18	20
Average barley yield per acre	bushels	34	24
Acres in alfalfa hay and seed (total of group)	acres	748	755
Number of farms having alfalfa	number	25	25
Number of hogs sold (total of group)	number	143	371
Average value per hog	dollars	39	40
Number of cattle sold (total of group)	number	22	96
Average value per head	dollars	112	146
Total income from sale of poultry and eggs	dollars	1,168	1,264
Average size of farm	acres	223	222
Average acres cropland	acres	147	147
Average per cent of cropland to total farm	per cent	66	66

(c) Wheat (Vulcan-Claresholm Area)

	Unit	1949	1950
Acres in wheat (total of group)	acres	6,379	6,100
Number of farms having wheat	number	29	29
Average wheat yield per acre	bushels	19	14
Acres in oats (total of group)	acres	192	266
Number of farms having oats	number	10	17
Average oat yield per acre	bushels	27	23
Acres in barley (total of group)	acres	689	438
Number of farms having barley	number	12	11
Average barley yield per acre	bushels	15	18
Number of hogs sold (total of group)	number	115	203
Average value per hog	dollars	43	38
Number of cattle sold (total of group)	number	98	143
Average value per head	dollars	196	144
Total income from sale of poultry and eggs	dollars	1,750	1,107
Average size of farm	acres	513	514
Average acres cropland	acres	424	413
Average per cent of cropland to total farm	per cent	83	80

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Ratios

As mentioned in Part I, the summary income statement given in Table 14 was not satisfactory for the computation of ratios. Thus, in Table 16, capital expenditures and capital sales and their offsetting entries have been omitted, and depreciation included in farm expenses.

Table 16.- Income Statement, Average for Co-operators
Giving Continuous Records

(a) Central Alberta (Red Deer-Lacombe Area), Averages of 21 V.L.A. Farms

	:	1947	:	1948	:	1949	:	1950
- dollars -								
Gross income		4,440		4,629		3,260		5,202
Farm expenses (includes depreciation)		1,990		2,346		2,211		2,686
Net farm income		2,410		2,283		1,049		2,516

(b) Irrigation (Brooks Area), Averages for 29 V.L.A. Farms

	:	1949	:	1950
- dollars -				
Gross income		5,300		5,315
Farm expenses (includes depreciation)		2,695		2,855
Net farm income		2,605		2,460

(c) Wheat (Vulcan-Claresholm Area), Averages for 30 V.L.A. Farms

	:	1949	:	1950
- dollars -				
Gross income		8,153		4,408
Farm expenses (includes depreciation)		3,339		3,016
Net farm income		4,814		1,392

The low relative yields in central Alberta in 1949 and in the wheat area in 1950 are revealed in the poor showing of the ratios for these years in Table 17. The favourable ratios for 1949 in the wheat area reflected the high income average for that year.

Table 17.- Ratios, Averages for Co-operators Giving Continuous Records

(a) Central Alberta (Red Deer-Lacombe Area), Averages for 21 V.L.A. Farms

	:	:	:	:
	: 1947	: 1948	: 1949	: 1950
Gross ratio	45	51	68	52
Net farm income to gross farm income ratio	55	49	32	48
Rate of turnover	36	34	23	32
Years for gross income to equal average invested capital	2.8	3.0	4.3	3.2

(b) Irrigation (Brooks Area), Averages for 29 V.L.A. Farms

	:	:
	: 1949	: 1950
Gross ratio	51	54
Net farm income to gross farm income ratio	49	46
Rate of turnover	42	35
Years for gross income to equal average invested capital	2.4	2.8

(c) Wheat (Vulcan-Claresholm Area), Averages for 30 V.L.A. Farms

	:	:
	: 1949	: 1950
Gross ratio	41	68
Net farm income to gross farm income ratio	59	32
Rate of turnover	46	25
Years for gross income to equal average invested capital	2.2	4.0

PART III - CHANGES IN INCOME AND NET WORTH ON ALL FARMS

Part III deals with changes in income and net worth for all the farms included in the study. This sample of farms is not a constant sample; some operators dropped out each year for various reasons and new co-operators were contacted. They do, however, constitute a larger sample and are thus more representative of conditions, within a year, for the veteran population in the three districts. Comparisons between districts are more accurate but year to year changes within the districts are not as satisfactory for analysis.

Table 18.- Income Statement, Averages for All Records
Obtained in Each Year

(a) Central Alberta (Red Deer-Lacombe Area)

	:	:	:	:
	1947	1948	1949	1950
- dollars -				
Gross farm income	4,452	4,837	3,679	5,633
Farm expenses (include depreciation)	2,034	2,783	2,210	2,841
Net farm income	2,418	2,074	1,469	2,792
Number of farms	33	32	29	27

(b) Irrigation (Brooks Area)

	:	:
	1949	1950
- dollars -		
Gross farm income	5,690	5,315
Farm expenses (includes depreciation)	2,874	2,855
Net farm income	2,816	2,460
Number of farms	36	29

(c) Wheat (Vulcan-Claresholm Area)

	:	:
	1949	1950
- dollars -		
Gross farm income	8,172	4,408
Farm expenses (includes depreciation)	3,353	3,015
Net farm income	4,819	1,393
Number of farms	33	30

There are no essential differences in the relationships, between the three districts, from those discussed in Part II. Figures are simply based on a larger and probably more representative sample.

Change in Net Worth

Table 19.- Net Worth Statement, Averages for All Records
Obtained in Each Year

(a) Central Alberta (Red Deer-Lacombe Area)

	: At	: Dec. 31				
	: start	: 1946	: 1947	: 1948	: 1949	: 1950
- dollars -						
Real estate		5,538	5,906	6,226	7,166	7,701
Livestock		1,010	1,490	2,070	2,240	3,120
Equipment		2,371	2,911	3,542	3,502	4,251
Grains, feeds and supplies		780	1,560	1,463	1,182	1,774
All other assets		1,518	1,472	1,496	1,321	1,207
Total assets		11,217	13,339	14,797	15,411	18,053
Total liabilities		3,245	3,279	3,515	3,479	4,470
Net worth		5,880	7,972	10,060	11,282	11,932
Change in net worth				2,088	1,222	650
Total change in net worth						1,651
Number of farms	31	33	33	32	29	27

(b) Irrigation (Brooks Area)

	: At	: Dec. 31	: Dec. 31	: Dec. 31
	: start	: 1948	: 1949	: 1950
- dollars -				
Real estate		4,572	6,369	6,379
Livestock		1,809	2,673	3,228
Equipment		3,428	4,205	4,708
Grains, feeds and supplies		623	867	767
All other assets		1,995	1,548	1,286
Total assets		12,427	15,662	16,368
Total liabilities		3,086	3,890	4,691
Net worth		5,693	9,341	11,772
Change in net worth			2,431	-95
Total change in net worth				5,984
Number of farms	36	36	36	29

(c) Wheat (Vulcan-Claresholm Area)

	: At	: Dec. 31	: Dec. 31	: Dec. 31
	: start	: 1948	: 1949	: 1950
- dollars -				
Real estate		7,068	7,891	9,130
Livestock		1,213	1,552	1,923
Equipment		3,904	5,370	5,658
Grains, feeds and supplies		1,426	2,254	935
All other assets		2,533	2,553	2,527
 Total assets		16,144	19,620	20,173
 Total liabilities		4,017	4,314	4,780
 Net worth		6,088	12,127	15,306
 Change in net worth			3,179	87
 Total change in net worth				9,305
 Number of farms	33	33	33	30

CONCLUSIONS

In the course of or following a study of the financial aspects of a farm business the interviewed farmer is likely to compare the findings for the group of farms under study with the situation on his own farm. The question then inevitably arises as to what types of records and accounts to keep, and their practicability and usefulness.

There is no one answer to this question, the types of records and accounts to be kept depending mostly on the type of farm organization and the farmer's ability and desire to keep detailed records of his activities and transactions. For example, a larger number of and more complicated records and accounts are required for a mixed farm than for a specialized grain farm. There is also a marked difference between the types of records and accounts required in irrigation districts and in wheat-producing areas.

Nevertheless, production records and financial accounts have become an almost essential part of the good management of a commercial farm. Success of farming depends largely on crop yields, amount of rainfall, efficiency of feeding, etc., and a farmer will thus need to keep records of such things as the quantity of milk produced, the amount of feed used, the rate of application of fertilizer, the dates of planting and harvesting, crop yields, crop rotations, and many others.

The job of selecting the most profitable enterprise or combination of enterprises becomes much easier when a farmer maintains detailed financial accounts and physical records. Many of the farmers who co-operated in this study kept complete financial accounts but very few kept complete physical records. However, as the financial accounts accumulated over a few years the need for these physical records was more and more apparent to the co-operators and good progress was being made in expanding the use of these types of records.

Enterprise accounts should be considered separately and in relation to the whole farm business. If a certain farm enterprise does not show a profit it does not necessarily mean that it should be dropped from the farm plan. This particular enterprise may contribute to some other profitable activity on the farm or it may be making use of materials, labour, or equipment which otherwise would be idle. It is preferable to have a small loss on one particular enterprise rather than a larger loss on the farm business as a whole. The converse of this will also be true; that is, if an enterprise does show a profit there may be a conflict with some other enterprise for the use of resources. It could be that the other enterprises might make an even greater use of the resources and thus a larger net income would result if they were used on the other enterprises.

Another way in which records and accounts are useful to a farmer is in showing him where he is headed financially. They will show how much income he is making and whether he is progressing or falling back financially. Records and accounts must of course be analyzed and this requires some understanding of the principles involved.

On many farms discouragement may come about even when financial progress is being made, because of the practice of making too rapid increases in investments on the farm out of income, leaving little for family living expenses. For the same reason, farm operators may also find themselves low on funds for payment of previously incurred debts.

The variability of farm income is also another reason why discipline is required in the matter of capital investment and the spending of income for family living. Capital accumulation and savings in farming commonly take the form of increases in inventories of livestock and equipment, and improvements to land and buildings. In years of low net income or in years when losses have been incurred some disinvestment is justifiable.

The average increase in net worth attained by the veterans included in this study was brought about by several factors. Because of a rising level of prices all of this increased net worth did not mean a corresponding increase in security and operating efficiency. Increasing prices for machinery during these years accounted for the larger investments, made necessary to maintain or increase the mechanization of the settlers' farms. Enlargement of the cattle inventory came about partly from purchases at higher prices or from building up stock from cattle which had a high sale value.

However, an increase was required in the working capital over these

years to meet the rising costs. This increase of capital was brought about by an increase in the investment by the veteran as well as by his creditors. This increase in investment, and in settlers' equity and levels of living were the well-deserved rewards of years of effort and intelligent management.

SUMMARY

A. Progress of 15 V.L.A. farmers in Central Alberta.

1. The 15 V.L.A. farmers from the Red Deer-Lacombe area of Central Alberta averaged \$4,187 gain in net worth from the end of 1946 to the end of 1950.
2. Their farm capital - real estate, livestock, equipment, grain, feeds and supplies inventories - had increased, on the average, by \$5,524, from the end of 1946 to the end of 1950.
3. The average real estate inventory value was \$5,654, and represented 56 per cent of the farm capital at the end of 1946; it had increased to \$7,356 and represented 47 per cent of the farm capital at the end of 1950.
4. The average livestock inventory value was \$1,112 and represented 11 per cent of the farm capital at the end of 1946; it had increased to \$3,418 and represented 22 per cent of the farm capital at the end of 1950.
5. The average equipment inventory value was \$2,298 and represented 23 per cent of the farm capital at the end of 1946; it had increased to \$3,850 and represented 25 per cent of the farm capital by the end of 1950.
6. The average grain, feeds and supplies inventory value was \$1,008 and represented ten per cent of the farm capital at the end of 1946; it was \$972 and represented six per cent of the farm capital at the end of 1950.

Comparisons of Progress made by Settlers in Three Alberta Areas.

1. In central Alberta, 21 V.L.A. farmers achieved an average gain in net worth of \$7,225 during the 1946-50 period. In the Eastern Irrigation District, 29 farmers gained an average of \$6,487 and in the wheat growing area of Vulcan-Claresholm, 30 V.L.A. farmers had an average gain in net worth of \$9,156 over the same period.
2. At the end of 1950 real estate averaged \$7,827 per farm on farms in central Alberta, \$6,379 on those in the irrigation district and \$9,123 per farm on farms in the wheat growing area.
3. Livestock, also at the end of 1950, average \$3,097 per farm for the group of farms in central Alberta, \$3,228 for those in the irrigation district and only \$1,923 per farm for the wheat farms in the Vulcan-

Claresholm area.

4. The value of farm equipment averaged \$4,139 per farm on the farms in central Alberta, and \$4,708 and \$5,658 on the irrigation and wheat farms, respectively.
5. Grain, feeds and other supplies inventories were highest for the group of farms in central Alberta. They averaged \$1,384 per farm compared to \$767 per farm for the irrigation farms and \$935 for the wheat farms.

